



U.S. Department of Justice

Environment and Natural Resources Division

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Alan L. Schneider, Esq.
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Re: Bonnichsen, et al v. United States, CV-96-1481 JE

Dear Ms. Barran and Mr. Schneider,

In his August 30, 2002, Opinion and Order, Magistrate Judge Jelderks directed "[P]laintiffs to submit a proposed study protocol to the agency within 45 days of the entry of this Order" and directed defendants to "respond to that proposed protocol within 45 days of its receipt." August 30, 2002, Opinion and Order at 73. On October 10, 2002, Mr. Schneider submitted the plaintiffs' plan for study to the U.S. Attorneys' Office in Portland, which forwarded it to the client agencies for their review.

Consistent with the Court's direction, the client agencies have reviewed the plan submitted by the plaintiffs as a request for a permit under the Archaeological Resources Protection Act ("ARPA"). As a result, the client agencies now have different obligations and responsibilities than they had when they believed the human remains were subject to the Native American Grave Protection and Repatriation Act (NAGPRA). As the Court noted, while ARPA provides for the issuance of permits for study of archaeological resources, it also requires that the archaeological resources be preserved. See Opinion at 70. In developing their response to the plaintiffs' study plan, the agencies have tried to balance the requests in the plan of study with their statutory obligation to preserve archaeological resources "for the present and future benefit of the American people." ARPA, 16 USC §§ 470aa-470mm.

Attached hereto is a cover memorandum from the Deputy Division Engineer for the Corps of Engineers which provides an overview of the agencies' responsibilities under ARPA and their concerns with the plaintiffs' plan of study. Enclosed with that memorandum are relevant guidance and a technical response to plaintiffs' study plan which responds to the individual components of plaintiffs' study plan, sets out specific concerns, and requests additional information and/or clarification of particular procedures contained in the plaintiffs' study plan. While my clients understand that the Court has stated its belief that the remains would have been "available to qualified professionals for scientific study" under ARPA, and directed them to allow plaintiffs access to the human remains for study purposes

72-73), the Court also directed that such access be "subject to the type of reasonable terms and conditions that normally apply to studies of archaeological resources under ARPA." Id. at 73. My clients do not believe that the plaintiffs' proposal provides all of the information necessary for them to develop reasonable terms and conditions for a study permit. However, in both the cover memorandum and the technical response, my clients express a willingness to work with the plaintiffs to develop a permit that will allow plaintiffs access to the remains for study purposes but will be consistent with my clients' statutory obligations under ARPA. I fully support that approach and am available to facilitate further exchanges of information, setting up of discussions, or scheduling of meetings for the purpose of arriving at appropriate terms and conditions for a permit.

Finally, as you are aware, the United States and tribal intervenors have filed notices of appeal. The tribal intervenors are seeking a stay of further proceedings in the district court. In support of their motion for a stay, they have submitted the plaintiffs' study proposal and their opposition to it. While we have no objection to the tribes' motion for a stay, and believe that maintenance of the status quo pending appeal is appropriate, we remain willing to work with the plaintiffs to develop appropriate permit terms. However, by doing so, we waive no rights or arguments with regard to the appellate proceedings.

SIGNED

David F. Shuey
Senior Counsel
U.S. Dept. of Justice
202-305-0467

cc: Tim Simmons



DEPARTMENT OF THE ARMY
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Reply to
Attention of:
CENWD-OC

22 November 2002

MEMORANDUM FOR U.S. DEPARTMENT OF JUSTICE (David F. Shuey and Timothy W. Simmons)

SUBJECT: Plaintiffs' October 10, 2002 Study Plan; *Bonnichsen et al. v. United States*

1. On August 30, 2002, Magistrate Judge Jelderks ordered "Plaintiffs request for access to study be granted, subject to the type of reasonable terms and conditions that normally apply to studies of archaeological resources under [the Archaeological Resources Protection Act of 1979] ARPA." *Bonnichsen v. United States*, 217 F. Supp. 2d 1116 at 1167 (D. Or. 2002). Based on a technical review of the study plan submitted by the Plaintiffs, and in order to comply with the judge's order to the Corps to "respond to [the] proposed protocol within 45 days of its receipt", we recommend that Plaintiffs' proposed plan be clarified and the individual studies further detailed in order to conform to conditions imposed on research performed pursuant to ARPA and the Corps' responsibility to preserve the skeleton under the same statute and implementing regulations before proceeding with the study. 36 C.F.R. § 79.10; *Bonnichsen*, 217 F. Supp. 2d at 1165-67; *see also* *Bonnichsen v. United States*, 969 F. Supp. 628, 654 (D. Or. 1997) ("[t]he remains shall continue to be stored in a manner that preserves their potential scientific value").

2. Attached please find a technical review of the proposed study plan. The requested clarification and detail are based upon our responsibility to maintain and protect the integrity of the archaeological resource. As you are aware, the purpose of the ARPA, 16 U.S.C. §§ 470aa-470mm, is to protect archaeological resources "for the present and future benefit of the American people." 16 U.S.C. § 470aa(b). Under the implementing regulations, federal agencies have a responsibility to "protect and preserve the condition, research potential, religious or sacred importance, and uniqueness of the collection." 36 C.F.R. § 79.10; *see also* 32 C.F.R. § 229. The U.S. Army Corps of Engineers has provided additional guidance for access to such collections under ARPA, to make collections available to qualified professionals for studies, loan, and use to include in-house, traveling exhibits, teaching, scientific analysis and scholarly research. For example, the use of the collection is subject to "such terms as are necessary to protect and preserve the condition, integrity, and research potential of the collection." All users shall "adhere to all rules established by the collections management center to protect the collection." U.S. Army Corps of Engineers Engineering Pamphlet EP 1130-2-540 (6.4)(c); *see also* U.S. Army Corps of Engineers Engineering Regulation ER 1130-2-540 (6.2)(3); CECW-AG Memorandum dated June 21, 1996 (copies of excerpts attached).

3. Given our responsibility under statute, regulations, memoranda, agreements, and court direction, to preserve and protect the Kennewick Man collection, it is recommended that additional information be submitted before individual studies proceed. As indicated in the

attached technical review, the proposed plan needs additional specificity in order to determine the potential effects to the collection. The additional information should be sufficient in detail to allow the government to evaluate and assess the effects to the human remains. This is particularly important with respect to proposed destructive analyses and studies requiring excessive handling of these fragile human remains, such as the proposed reassembly/reconstruction study or the microsampling.

4. The study plan also proposes a number of studies to be performed that appear redundant—both within the study plan itself and with the earlier government studies performed in 1999 and 2000. This redundancy creates a risk of harm to the collection due to repetitive handling. However, it is possible that what appears to be redundant study and handling can be explained through additional information or discussion. For instance, there are seven distinct proposed studies that purport to examine, measure, or observe the cranial and post-cranial elements. Such measurements and observations were also conducted in earlier studies of the remains and it is therefore unclear as to the necessity or purpose of further studies.

5. With respect to the proposed invasive and destructive tests, 36 CFR § 79.10(d)(5) provides that “[T]he Federal Agency Official shall not allow uses that would alter, damage, or destroy an object in a collection unless the Federal Agency Official determines that such use is necessary for scientific studies or public interpretation, and the potential gain in scientific or interpretive information outweighs the potential loss of the object.” We do not believe the study plan contains sufficient information to make this determination. The technical analysis describes the information needed to make this determination.

6. Preliminary coordination regarding the proposed study plan with the Burke Museum indicates that their estimated cost would be approximately \$20,000 to support the study request. In addition, depending on the scope of participation to assure the preservation of the collection and the potential scientific value of the remains, the Corps costs could be substantial. At the present time none of these costs have been budgeted by the agency. Because of the complexity of issues dealing with the Kennewick collection, these costs will probably well exceed the costs of a typical study under ARPA.

7. More detailed comments and elaboration are included in the enclosed response. We look forward to more detailed information from the plaintiffs that include more specificity regarding the study details and less redundancy, taking into account the complex preservation requirements of the collection under ARPA. In addition to the attached comments we would be glad to participate in a conference call or meeting between our technical reviewers and the plaintiffs’ representatives to review the proposal and our attached comments in order to facilitate the submission of the additional information that is needed to coordinate the study and to finalize the overall program.

SIGNED

DALE A. KNIERIEMEN
Colonel, Corps of Engineers
Deputy Division Engineer

Enclosures
as

**Government's Response
To Plaintiffs' Study Plan
22 November 2002**

1. Introduction

a. On August 30, 2002, Magistrate Judge Jelderks ordered that Plaintiffs' request for access to study be granted, "subject to the type of reasonable terms and conditions that normally apply to studies of archaeological resources under [the Archaeological Resources Protection Act] ARPA." *Bonnichsen v. United States*, 217 F. Supp. 2d 1116, 1167 (D. Or. 2002). Under ARPA, regulations regarding the appropriate research and study of federally owned and administered archeological collections can be found at 36 CFR Part 79. Pursuant to the judge's order, Plaintiffs submitted a proposed study plan on October 10, 2002 (hereinafter Study Plan), that consists of 29 different studies of the collection to be performed over a 12-day work schedule. This document serves as the response ordered by the Court. *Id.* ("Defendants shall respond to that proposed protocol within 45 days of receipt of the proposed protocol.") This document is based in part upon technical comments provided by the U.S. Army Corps of Engineers Mandatory Center of Expertise for the Curation and Management of Archaeological Collections.

b. Given the government's stewardship responsibility to care for the Kennewick remains, we are requesting clarification of the study proposal and are also recommending Plaintiffs revise and supplement their study plan. First, and most significantly, the plan lacks the details necessary for us to determine potential impact to the remains. Second, the research proposed is not described in sufficient detail to judge how, or whether, it is likely to improve the public and scientific understanding of the topics identified by Plaintiffs as relevant to their proposed study. Third, it appears that a number of the studies are overly redundant (either with earlier governmental

studies in February 1999 and April 2000 or with studies presented in Plaintiffs' own study plan). Fourth, all documents (including, but not limited to, photographs, databases, reports, daily notes, and subsequent publications) shall become a part of the collection and will be maintained with the associated records for later research efforts.

c. It is recommended that the study plan be supplemented with information outlined in this report. It should provide more details and greater specificity regarding the studies proposed and the potential impact to the skeleton, as well as explanations for the necessity of redundant tasks and measurements which would be acceptable under the terms and conditions that are required for research using federally owned or administered archaeological collections under 36 CFR Part 79.

d. Plaintiffs' supplemental material should address coordination, specifically logistics and associated costs associated with the proposed study. For example, the Burke Museum now estimates a minimum cost of \$20,000 to support the study request. The government will also incur costs in responding to the requirements of the study proposal in addition to its currently budgeted costs to support Kennewick Man requirements. This would entail significant work prior to, during and after the commencement of the studies. It is also recommended that government curators/conservators be required to be on-site throughout the study. In addition we anticipate that costs specific to the study (including transportation, security, equipment, and production of reports) will be borne by Plaintiffs and addressed as part of the coordination/logistic support.

e. To assist Plaintiffs in supplementing this plan, we provide the following general discussion, divided into three general topics: (1) observations and measurements, (2) reversible reconstructions, and (3) invasive and destructive tests. These comments should not be

interpreted as all encompassing, but rather as generalizations that should be applied to the entire study plan. Since these remains have been under the government's care it has been our position to assess and evaluate the relevance of any study according to "such terms and conditions as are necessary to protect and preserve the condition, research potential, religious or sacred importance, and uniqueness of the collection." 36 C.F.R. § 79.10.

2. Observations and Measurements

a. The studies briefly outlined in the "Inventory of the Skeletal Elements" section (Study Plan at 2-3) and in the "Observations and Measurements" section (*id.* at 4-16) are described too generally and lack the specificity necessary for the government to determine the potential impact to the remains and the potential value of the additional research. In addition, it appears that a number of the observations and measurements are redundant, either within Plaintiffs' own study plan or with the government's earlier studies in February 1999 and April 2000. As a result, their plan is too general and overly broad and may lead to significant irreversible damage to the remains that will preclude further meaningful research. In addition, the research outlined may unnecessarily damage the remains and, therefore, have ramifications for the government's duty to preserve the collection's value.

b. The study plan proposes measurements and observations of the Kennewick remains by at least 14 separate groups or individuals. It appears that Plaintiffs' study plan does not take sufficient account of the measurements, observations, and interpretations already made by scientists as part of the government studies in February 1999 and April 2000. A more-detailed review of the results of these investigations could enable Plaintiffs to focus more specifically on what new measurements and observations are needed as well as which of the existing measurements and observations should be reinvestigated and how and why they should be

reinvestigated. At a minimum, a more-detailed and specific comparison of the studies to date and the proposed studies is required for the government to evaluate whether the research proposed meets the requirements of the archeological curation regulations.

c. The supplemental plan should provide specifics of how the individual studies will advance the knowledge about the Kennewick remains by improving upon the interpretations already provided in the government's studies. Such specifics are mandated by regulation and guidance. *E.g.*, 36 C.F.R. § 79.10.

d. This study plan at present proposes substantial handling of these fragile remains, which will harm the integrity of the entire skeleton and diminish its value for possible future study. In addition, the special care required for the fragile remains has not been addressed by Plaintiffs and needs to be taken into account so that handling will be limited to only that which is essential because changes in the condition of the remains are proportional to the amount of handling received (*i.e.*, more handling = more damage). Plaintiffs should address these concerns and discuss how the possible damage to the skeleton balances with the potential gain of scientific understanding. *See* 36 C.F.R. § 79.10(d)(5); *see also* National Park Service Cultural Resource Management Policy (hereinafter NPS Guidance) at 54, ¶ 5.3.4.

e. For example, within "Observations and Measurements" Study 5 (Examination of Hands and Feet), Study 6 (Skeletal Measurements), and Study 8 (Paleopathology Examination) there are no specifics about what particular measurements or observations are to be taken. This is particularly important since many standard measurements and observations have already been made and published as part of the 1999 and 2000 government studies. All of these measurements and observations are to be checked as part of the "Observations and Measurements" Study 1 (Taphonomic Analysis of the Skeleton), and it is recognized that a

certain amount of verification is important to the scientific process, but subjecting the remains to repeated handling and potential damage is a concern. How these studies (*i.e.*, Studies 5, 6, and 8) would advance interpretations based on the 1999 and 2000 government studies and how they would be coordinated with the other more comprehensive studies (*e.g.*, Study 1) is not described in the study plan and needs further elaboration.

f. For example, “Observations and Measurements” Study 3 (Investigation of Embedded Projectile Point) and Study 7 (Skeletal Observations) both describe inspection of the point embedded in the pelvic bone in similar terms. Neither specify how these inspections will resolve the questions about point type, raw material type, or orientation of the point and its original trajectory into the bone that are mentioned as being in dispute. Neither study seems to anticipate or discuss potential impact to the collection.

g. Plaintiffs’ request for Scientific Photography (Collection and Study Session Imaging Study 1) needs further details regarding handling and light levels and how these will be moderated to ensure the remains do not suffer undue heat stress. Skeletal supports and all of the photographic equipment to be used also must be described. Space limitations at the Burke Museum may cause additional problems, but the Burke will strive to provide the space requested.

h. A more-thorough plan that describes how the remains will be supported and packaged, how they will be moved, and how they will be secured during the Radiographs, CT imaging, and SEM bone analysis of the remains (Collection and Study Session Imaging Studies 2, 3, 4, 5, and 7) is requested. It is recommended that the plaintiffs provide the government with the name of the facilities and staff curriculum vitae that will be performing this work.

i. Further details are needed regarding handling, skeletal supports, and all of the equipment that will be used for laser scans (Collection and Study Session Imaging Study 6) of the remains.

j. In sum, Plaintiffs' study plan must be supplemented to take into account the comments noted above. In preparing a revised plan, it is recommended that Plaintiffs should:

1. provide a coordinated list of all the measurements that are proposed to be taken by each study, and
2. illustrate that they have reviewed the government's 1999 and 2000 studies and justify the need to redo work previously performed, and
3. illustrate a willingness to reduce handling by combining redundant tasks, and
4. discuss the potential impact to the skeleton, and
5. outline how they will pay for all associated costs with the study, and
6. be subject to approval by government personnel if it is determined, at any time, that the study will unduly harm the remains.

With this information, the government and Plaintiffs should be able to move forward with these particular studies, keeping in mind that the ultimate goal is to balance research with preservation.

3. Reversible Reconstructions

a. The Revised Joint Memorandum of Agreement Regarding the Transfer of the Remains to the Burke Museum (30 September 1998) (hereinafter Joint Memorandum), which was agreed to by the government and Plaintiffs, stipulates that treatments to the remains are to be avoided unless applicable to the preservation of the remains. As a result, the government has not undertaken permanent additions (*e.g.*, adhesives) or alterations (restorations) to the remains—the current catalog labels are reversible, the reconstructions performed during the government's studies utilized easily removable materials, and supplemental supports used during handling, study, transportation, and documentation were inert and appropriate to the specific task.

b. When adhesives (any bonding agent) are employed, it is appropriate that the join be reversible. When an adhesive is reversed and removed no original material should be lost and no additional materials should remain as a result of the process. The choice of adhesive and solvent type, concentrations, and application techniques are dependent on the conditions, weight distributions of the materials (bone) to be bonded, and variable concentrations of associated soils. The use of adhesives for reassembly of bone fragments is understood to be a distorted interpretation rather than an accurate reconstruction. Any time adhesives are used, there is additional material lodged between original surfaces that can set and hold in almost any associated position/arrangement and contribute to the overall measurements. An accurate reassembly relies on a keyed alignment with gravitational balance. Adhesives would inhibit keying of fragments (Study Plan at 33). Therefore, we request that Plaintiffs propose a detailed reconstruction protocol that describes how they will perform the reconstructions, how they will reverse them when the study is complete, and how they will ensure the remains are not unnecessarily damaged.

c. Though the study plan does not often directly refer to cleaning there are indirect references, since dental picks and spatulas are mentioned as equipment for the inventory, both paleopathology exams, and dental measurements and observations. Use of metal tools will surely result in unintentional scratching of the bone surface, and the removal of encrusted surface soils or embedded soils using picks will result in further bone loss. During the government's study, no metal dental picks were allowed, and the government does not support such tools for Plaintiffs' study absent further justification. Cleaning is directly mentioned for dental peels. This involves the application of both acetone and alcohol to the dentition and could damage the remains significantly. We ask that Plaintiffs propose an alternate protocol that is more sensitive

to the fragility of the remains. No references were made to how loose teeth will be treated, nor the care and documentation of associated plaque during cleaning and peeling.

d. For the purpose of observations and measurements, Reassembly and Reconstruction of Skeletal Elements (Collection Inventory, Assembly, and Reconstruction Study 2) may proceed with the use of reversible materials (*e.g.*, microcrystalline wax supports, parafilm), the direct assistance of a conservator, and the exclusion of metal tools and implements. As agreed to by the government and Plaintiffs in the Joint Memorandum, treatments to the remains are to be avoided unless applicable to the preservation of the remains. Therefore, there should be no addition of new materials (*e.g.*, wood splints and adhesives) and after the study, all of the elements must be disassembled without loss of bone or residual added materials, and the fragments must be returned to their original curation boxes. *See also* 36 C.F.R. § 79.10.

4. Invasive and Destructive Tests

a. The government concerns with Plaintiffs' request to use the archived test remnants as outlined in Sampling and Testing Study 2 (Microsampling of Archived Test Remnants) and Study 3 (Stable Isotope Analyses); however, we are reluctant in recommending any further invasive or destructive tests at this time. This includes all invasive and destructive tasks associated with Sampling and Testing Study 1 (Microsampling of Collection), Study 4 (Radiocarbon Measurement of Calcium Carbonate Concretions), and Study 5 (Sediment Sampling and Analysis), and Collection and Study Session Imaging Study 8 (Dental Peels of Occlusal Surfaces). As described in 36 CFR Part 79:

The Federal Agency Official shall not allow uses that would alter, damage or destroy an object in a collection unless the Federal Agency Official determines that such use is necessary for scientific studies or public interpretation, and the potential gain in scientific or interpretive information outweighs the potential loss of the object.

36 C.F.R. § 79.10(d)(5); *see also* NPS Guidance (“use of human remains [for study and destructive analyses] will occur only with an approved research proposal that describes why the information cannot be obtained through other sources or analysis, and why the research is important to the field of study and the general public.”). The sections of Plaintiffs’ study plan that describe the invasive tests listed above do not contain enough information for the government to make a reasoned, well-supported determination regarding these studies. Plaintiffs would need to provide the government with: (1) a list of the exact bones that will be sampled for each study, (2) the location on the bone where the samples will be taken (with illustrations), (3) the exact size of the sample that will be extracted, (4) the exact equipment that will be used, (5) a detailed description of the analytical technique that will be used and published examples of its successful use on similar materials, (6) the name and curriculum vitae of the persons extracting the samples, (7) the name of the facility and the curriculum vitae of the staff that will be performing the analysis, (8) the research question that will be answered from the analysis, and (9) the rationale for the use of destructive analysis. This information will be used to determine whether we should recommend if these tests should be undertaken.

b. In addition, Plaintiffs’ study plan does not take into account the microsampling investigation and analysis performed by the government in 2000. The 2000 microsamples were taken to estimate the potential of different parts of the skeleton for ancient DNA analysis. Plaintiffs should address the results of the 2000 analysis, specifically why additional analysis is needed, when they provide the government with a revised request for invasive and destructive research. After Plaintiffs have had the opportunity to investigate the remains in more detail and review the 2000 analysis, they should be able to provide enough information for the government to formulate an informed decision.

5. Closing Observations and Summary

a. Plaintiffs' proposed plan contains numerous redundancies, and while it is recognized that independent verification of data is crucial for the scientific process, the fragile nature of the remains may preclude the amount of handling requested in Plaintiffs' study plan. The plan also lacks the detailed description and specificity necessary to determine either the appropriateness of the research proposed or the potential impacts of the proposed studies on the remains. The magnitude of the procedures and space assumptions outlined by Plaintiffs may not be able to be supported by the Burke Museum at this time and therefore further coordination is necessary regarding these requirements, including issues of space and the number of individuals present in a room at any one time. As a result, the government requests that Plaintiffs supplement their study plan based on all of the comments noted above.

b. Overall, the objectives of the study plan (Study Plan at 1) are broader than the purpose of the government's studies, including the greater focus on what can be learned about the peopling of the New World through the study of the Kennewick remains and the objective of checking or verifying various measurements and observations of the government's research. Many of the objectives, however, are identical to those of the governmental studies, including the biological age of Kennewick Man at the time of his death, the injuries he suffered during his lifetime, the style of the projectile point embedded in his pelvis and its orientation, the way of life he and the cultural group that he was part of followed, and what cultural and/or natural processes affected his body over time following his death (*Id.* at 1–2). The government requests that Plaintiffs address how further studies will aid scientific information. See 36 CFR Sec. 79.10.

c. Given possible space constraints at the Burke Museum, the number of researchers in the room at any one time may need to be limited. In addition, two conservators appointed by the

government, as well as a Burke representative, should also be present when it is necessary and appropriate. The government needs sufficient advance notice of all participants in the study, including possible substitutes.

d. The government requires that the information generated from the studies immediately become part of the collection at the museum and be maintained with the records associated with the analyzed material. 36 C.F.R. § 79.3(2). This includes the originals of all documents, including photographs, databases, X-rays, CTs, laser scans, SEMs, daily notes, final reports, and any subsequent publications. 36 C.F.R. § 79.4. We anticipate Plaintiffs' supplemental plan will reflect this requirement. This information may be made available to other researchers as requested. This requirement is standard protocol for access to federally managed collections.

e. In sum, additional supplemental information is needed, preferably adopting a phased approach (*e.g.*, Phase 1: meeting to view remains and discuss study; Phase 2: observations, measurements, and photography; Phase 3: request for sampling and testing; and Phase 4: sampling and testing, if recommended). The supplement should be submitted with more specific description of the comparative studies, pointing out in more detail how the new measurements and observations will resolve questions based upon the interpretations from the 1999 and 2000 government investigations. The supplemental information should discuss measures to reduce the handling of these fragile remains. An understanding regarding costs, including those of the Burke, is also required. Finally, the plan should provide some commitment for an integrated final report (including all baseline data) that resolves, or at least makes clear, any differing interpretations from the individual studies.